

ABSTRACT

The present invention discloses, *inter alia*, a composition useful for producing a homogeneous, semipermeable membrane, the composition comprising (1) a polysulfone compounds, (2) a solvent, such as sulfolane, antipyrine, δ -valerolactam, diethyl phthalate, and mixtures thereof, and (3) a non-solvent, such as poly(ethylene glycol), di(ethylene glycol), tri(ethylene glycol), glycerol, and mixtures thereof. Another aspect of this invention discloses methods for fabricating semipermeable membranes by homogeneously mixing the composition of the polysulfone compound, solvent, and non-solvent, melting the composition, and melt-spinning the molten composition. Another aspect of the present invention includes homogeneous, melt-spun, semipermeable membranes useful for liquid separation processes, such as, but not limited to, microfiltration, ultrafiltration, dialysis, and reverse osmosis.